Abstract

The present invention relates to an interferometric measuring device for measuring the shape of a surface (A) of an object (BO) having a radiation source (KL) which emits a short-coherent radiation, a beam splitter (ST) for forming an object beam which is directed via an object light path (OW) to the object (BO), and a reference beam which is directed via a reference light path (RW) to a reflective reference plane (SP1), and having an image converter (BW) which picks up the radiation reflected back by the surface (A) and the reference plane (SP1) and brought to interference, and sends it to an analyzing device for determining a measuring result pertaining to the surface (A), the optical length of the object light path (OW) being changed relative to the optical length of the reference light path (RW) for analyzing the interference peak. In the case of simple alignment, an accurate measurement of spatially separated surfaces is achieved by providing a superposition optics in the object light path (OW) having multifocal optics (LB) or a free-segment optics (FO) composed of various imaging elements; by being able to generate an image simultaneously of, apart from surface (A), also of at least one further surface (B), using the superposition optics, and this image is imaged on image converter (BW) directly or via at least one intermediate image; and by having the analysis of the interference maxima corresponding to surface (A) and the at least one further surface (B) take place with time-wise successive scanning.

(Fig. 1)